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CTC Curriculum Training Program
Developing Core Learning Experiences

Program Manual: 2001-2002

Contents

Rhode Island Consortium of Directors and Principals:

The training program reflects the goal of the ***Rhode Island Consortium of Career and Technical Directors and Principals*** to create a common curriculum among its members schools and to work with the Department of Education to revise all CTC curricula so that they reflect a standards-based framework. The CTC directors and principals provide support for the project through funds, teacher release time, directors' certificates, and stipends.

Joseph Crowley, Chairman, Chariho Career & Technical Center
Jean Campbell, Cranston Area Career & Technical Center
James H. DeLuca, Jr. Warwick Area Career & Technical Center
Bernard Lough, Assistant Superintendent, Providence
Joseph Martins, Newport Area Career and Technical Center
Stephen Propatier, East Providence Career and Technical Center
Andrew Riley, Woonsocket Area Career & Technical Center
Nancy Springelmeyer, Coventry Career & Technical Center
Steve Thornton, William Davies Career & Technical Center, Lincoln

Overview

The **purpose** of the 2001-2002 CTC curriculum program is to provide teachers of a given subject-area with training that will enable them to achieve the following:

Write rubrics that express clearly what it means to meet and to exceed the standards that shape a given core learning experience.

Increase the degree to which student learning involves active learning. Active learning refers to learning situations in which students must think for themselves in order to complete the task. Examples of active learning include explaining, relating, hypothesizing, thinking critically, problem-solving, designing, experimenting, and research activities.

Design core learning experiences that create a significant educational experience, address important subject matter topics, focus on active learning, and integrate industry, performance standards, ITEA standards seamlessly.

Each subject area group of teachers will develop a set of core learning experiences which its students are expected to complete by graduation. A core learning experience consists of a series of related learning experiences (lessons) that guide a student in the acquisition of knowledge, skills, and attitudes necessary to complete a core performance. A core learning experience performs four functions:

a) creates a significant educational experience,
b) addresses important foundation curriculum topics,
c) stimulates higher level thinking, and,
d) integrates seamlessly New Standards Performance Standards, industry standards, & International Technology Education Association (ITEA) technology standards.

Core learning experiences are analagous to standards-based units of study as described in the ASCD publication, *How to Use Standards in the Classroom*, and the extended student work units described in America's Choice workshop handbook, *Standards-Driven Curriculum: Course 1*.

Program participants will receive a directors' certificate, continuing education credit, and graduate school credits. The last page of the manual describes requirements for the directors' certificate and graduate school credit.

Structure of Training Sessions:

Lecture/activity presented by training session instructor.
Teacher presentations of core learning experiences.
Group review and feedback of core learning experiences presented.
Discussion about core learning experiences for next topic.
Teacher presentations on other topics, such as site visits.

Sections of a Core Learning Experience

I. Introductory Pages

Cover Page
Introduction
Standards Addressed by Core Experience
Rubrics
Core Learning Experience Summary Chart

II. Student Learning Experiences

Learning experiences and student handout appendices
Integrative/review experience

III. Core Assessment: product & performance (See ***Specification Sheet for Core Performance*****)**

Core Performance Description
Appendix (copies of all student handouts)

Length and Duration of a Core Learning Experience

The number of learning experiences (lessons) that compose a core learning experience is determined by the core assessment. The greater the number of new cognitive demands (depth and breadth of new material, degree of complexity present in the new skills or knowledge) placed on a learner during a core assessment the greater the number of lessons required in order to prepare student for the final performance. The number of lessons should be sufficient so that all students are prepared to perform well on the final assessment.

The duration of a core learning experience ranges from one week to several months. It is determined by the depth and breadth of what students are expected to learn and the complexity of the core performance they are expected to complete.

Factors that Determine the Quality of a Core Learning Experience

Rubrics:

Rubrics should describe clearly and concisely performances that meet or exceed the standards.
Rubrics should represent standards in a manner meaningful for students.

Cohesion:

The learning tasks should relate to the Standards identified for the core assessment
The learning tasks should relate to one another and to the core assessment

Active Learning:

Learning tasks should require higher level thinking.

Teacher Friendly:

The core learning experience should be complete with all student handouts and clear teacher instructions so that teachers can quickly and effectively use it.

Core Learning Experience: structure and representation

Structure of Core Learning Experience					
Objectives Unit objectives Specific objectives	**Standards** The curriculum includes three types of standards: industry standards, New Standards Performance Standards, & ITEA technology standards.	**Rubrics** They provide learners with an explicit "picture" of what it means to meet and to exceed the standards.	**Student Learning Experiences** A group of related learning tasks (a learning task is analogous to a lesson).	**Integrative/Review Experience** This type of task is usually found in large core learning experiences	**Core Assessment** Product Performance

Written Representation of a Core Learning Experience		
Introductory Pages Cover Page Objectives Standards Rubrics Learning Experience Summary Chart	**Learning Experiences including integrative/review experiences** Description of each learning experience in terms of standards, concepts, student task, higher level thinking tasks, instructional methodology, teacher responsibilities, materials, equipment, resource, and student handouts.	**Core Assessment: product & performance** Description of student tasks, higher level thinking tasks, teacher responsibilities, materials, equipment, and student handouts.

Guidelines for Designing and Writing a Core Learning Experience

Steps in Designing a Core Learning Experience	Steps in Writing a Core Learning Experience
I. Design Core Assessment (product and performance) A. Identify core objective (unit objective) and specific objectives B. Identify core assessment C. Identify standards Design Principles • Standards should include industry standards, technology standards, and New Standards Performance Standards. • The Performance Standards should include standards that address higher order operations. (Identified by bold face type in New Standards Performance Standards handout). • Selected standards should form collectively a meaningful learning experience. D. Construct Rubric(s) Some find it easier to construct rubric(s) later. Design Principles • Rubrics should describe clearly and concisely performances that meet or exceed the standards. • Rubrics should represent standards in a manner meaningful for students.	I. Complete Introductory Pages. A. Complete Cover Page Title of Core Experience Name of Teacher Title School Industry Advisor B. Write introduction Purpose of the entire core learning experience Core objective (major objective of the entire core learning experience) Specific objectives Estimated time C. List Standards Addressed by the core learning experience: include both letter/number code and written description for each standard. You should have files of New Standards and ITEA technology standards which I e-mailed you. Industry standards New Standards Performance Standards Technology Standards D. Include Rubrics E. Complete *Core Learning Experience Summary Char*t

II. Design set of learning experiences that prepare students for core assessment A. Identify sequence of learning experiences (derived from lessons of common curriculum) Design Principles • Learning experiences should relate to the Standards identified for the core experience. • Learning experiences should relate to one another and to the core assessment. B. Develop the set of related learning experiences (derived from lessons of common curriculum). For each learning experience, follow these steps. 1. Identify standards (subset of those cited in core assessment) 2. Identify key concepts that the lesson will address. 3. Develop learning tasks around active learning activities. 4. Optional. Develop assessment – include only if an assessment is included as part of the learning experience. Assessment should require higher level thinking. 5. Optional. Construct rubric(s) – include only if additional rubrics are necessary to complement rubrics that describe core assessment product and performance 6. Identify materials & equipment 7. Identify resources 8. Write all handouts necessary for students to complete the learning task. C. Optional. If there is a sufficient number of student learning experiences, develop an integrative/review experience which consists of the sections listed in II.	II.A. Describe Each Learning Experience. For each experience, complete the following. 1. State purpose 2. Estimate time 3. List standards – a subset of those cited in core assessment 4. List key concepts that the lesson will address. 5. List learning tasks. **6. Explain how tasks require higher level thinking.** 7. List teacher responsibilities. 8. Optional: Describe assessment – include only if an assessment is included as part of the learning experience. 9. Optional: Include rubric(s) – include only if additional rubrics are necessary to complement rubrics that describe core assessment product and performance 10. List materials & equipment 11. List resources 12. Provide copies of all handouts necessary for students to complete the learning task. II.B. Optional. If there is a sufficient number of student learning experiences, write an integrative/review experience which consists of the sections listed above

III. Develop Core Assessment: product & performance A. Develop core assessment. Design Principles • The assessment should include both a product and performance. • The purpose of the assessment is to provide evidence of how well students have met the standards. • The assessment should require higher level thinking to successfully complete. • The assessment should provide an opportunity to measure a student's performance and product in terms of standards cited as part of the core learning experience. B. Write all handouts necessary for students to complete the learning task.	III. Describe Core Assessment A. Describe student tasks B. Explain how tasks require higher level thinking. C. List teacher's responsibilities D. List materials & equipment E. Provide copies of all handouts necessary for students to complete the core assessment tasks.

Rubrics

Definitions of a rubric:

Rubrics provide by means of a rating scale a mental picture/image of an expected performance which should result from a group of related learning experiences.

Rubrics describe clearly and concisely performances that meet or exceed the standards

Rubrics explain standards in a manner meaningful for students.

Rubric defined as "any type of descriptive scale that defines the quality of work at different levels" (defined in Standards-Driven Curriculum: Course I Participant's Handbook published by America's Choice).

Rubric described as a "scoring guide" in *How to Use Standards in the Classroom*, published by Association for Supervision and Classroom Development.

Rubrics are evaluative tools which describe what performance is required in order to meet or exceed the standard (RI workshop handout).

Rubrics are guidelines to be used by both students and teachers to evaluate activities, presentations, performances, assessments (RI workshop handout).

Educational roles for rubrics:

Assessment
Self-Assessment
Context for feedback/formative evaluation
Model of an expected performance, which results from a learning experience.
Description of desired performance.

Rubric Structure:

standard
criteria/components
rating scale values/descriptors
profiles of rating scale values/descriptors

Rating Scale Descriptors: examples

two-category scale: *does not meet the standard, meets the standard.*
three-category scale: *does not meet the standard, meets the standard, & exceeds the standard.*
four-category scales:
a) *does not meet the standard, nearly meets the standard, meets the standard, and exceeds the standard;*
b) *just getting started, not yet, got it, wow.*

six-category scale (proposed in Standards-Driven Curriculum: Course I Participant's Handbook published by America's Choice)

off-task or no attempt, little or no success, partial success, ready for revision, meets the criteria for quality, and exceeds the criteria for quality.

Format:

Descriptions of each rating scale value presented as a list.
Descriptions of each rating scale value presented in paragraph form.
Descriptions of each rating scale value presented in matrix form.

Rubric Construction:

Task analysis - identification of performance components.
Scale construction - selection of values which are meaningful, observable, and measurable**.**
Writing descriptions of rating scale values

Criteria for writing profiles of rating scale values:

Performance descriptions should be clear, concise, comprehensible, and meaningful to students.
Performance descriptions should provide meaningful distinctions between values (descriptions within a given row). For example, the written descriptions should clearly distinguish a"2 performance" from a "3 performance."
Performance descriptions for all the criteria within a given value (descriptions within a given column) should form a clear picture of the general performance represented by the rating scale value.

Determination of range of rating scale values (levels):

The number of levels that compose a rubric rating scale should be determined by the number of levels that can be meaningfully represented. For example, use only a four point rating scale (1, 2, 3, 4) if only four levels of performance can be represented in a clear, meaningful manner.

Specificity of Written Descriptions of Rating Scale Values:

A number of criteria influence how specific a rubric's written descriptions should be. The criteria include learners' prior knowledge, their comprehension level, the nature (degree of complexity) of the and the context of the performance (a learning task within a larger core learning experience or a final assessment). The most significant criteria is that the writing should be sufficiently specific that learners have a clear image of how they are expected to perform at the standards and beyond standards levels.

Requirements for Directors' Certificate & Graduate School Credit & Grading Profile

1. During the academic year, complete two core learning experiences: one by February and one by June. Each core experience must contain related learning experiences that prepare students to meet the experience's standards. Core learning experiences must be submitted on time and follow the specifications detailed in the Program Manual. Grades will be lowered 15% for late submissions	60%
2. Make presentations of core learning experiences.	10%
3. Complete "cognitive problem-sets.	5%
4. Visit other teachers (two visits) in order to observe their operation and learn some of their instructional approaches. Make a short oral or written report that summarizes visits.	5%
5. Play an active role in training program Demonstrate commitment through attendance and active participation at meetings. Participate in a constructive manner, e.g., make comments that help to move project forward. Prepare for each training session in advance Provide support to other teachers in the development of core learning experiences. Support may be in the form of guidance, materials, or resources. Honor commitments made to colleagues by providing resources, making presentations at assigned times, and sharing lessons at training	20%

Dates and Location, Contact Hours, Time Outside of Class

Scheduled Training Dates
Monthly meetings from September to June, each 2 1/2 hours in length.
An additional session scheduled in March and April (5 hours), or teacher site visits: two site visits (6 hours).
A two-hour June luncheon attended by directors and teachers to discuss core learning experiences and program.

Contact hours: 32 hours if double sessions are scheduled; 33 hours if teacher site visits are scheduled.

Estimated Time Outside of Training Sessions
A minimum of **25 hours** is required for individual and group work. Twenty five hours are necessary to develop rubrics, develop student handouts, write core learning experiences, prepare presentations of work for review at training sessions, complete cognitive problem-sets, and work with other teachers to help them develop their core learning experiences.
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